

C L A I M S

1. A motor unit integrally comprising a motor and a drive control section having a control circuit for driving the motor,
5 characterized in that

the drive control section includes: a first circuit component containing section; a second circuit component containing section three-dimensionally arranged with respect to the first circuit component containing section; and a
10 connecting line arranged between the first and second circuit component containing sections.

2. The motor unit according to claim 1, characterized in that

15 the first circuit component containing section includes a printed wiring board, and

the second circuit component containing section includes circuit components electrically connected to the printed wiring board through the connecting line.

20 3. The motor unit according to claim 2, characterized in that

the printed wiring board and the circuit components arranged in the second circuit component containing section
25 are arranged substantially in parallel with each other, interposing the connecting line.

4. The motor unit according to any one of claims 1 to 3, characterized in that

signal system circuit components are arranged in the first circuit component containing section and

power system circuit components are arranged in the second circuit component containing section.

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5. The motor unit according to claim 4, characterized in that

the power system circuit components are directly mounted on the connecting line.

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6. The motor unit according to any one of claims 1 to 5, characterized in that

the second circuit component containing section is arranged on the outer surface side of the unit with respect to the first circuit component containing section.

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7. The monitor unit according to any one of claims 1 to 6, characterized in that

a heat sink is provided outside the second circuit component containing section.

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8. The motor unit according to any one of claims 1 to 7, characterized by comprising: the motor; a case frame which contains a speed reduction mechanism of the motor; and a cover assembly which is fitted to the case frame and contains the drive control section.

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9. The motor unit according to claim 8, characterized in that

the cover assembly has a two-chamber structure in which the first and second circuit component containing sections are arranged three-dimensionally in the upper and lower directions.

5 10. The motor unit according to claim 8 or 9, characterized in that

the cover assembly includes a dividing wall which separates the first and second circuit component containing sections from each other.

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11. The motor unit according to claim 10, characterized in that

the dividing wall has a connecting hole which communicates the first and second circuit component containing
15 sections.

12. The motor unit according to claim 10 or 11, characterized in that

the cover assembly includes: a bottom case which has the
20 dividing wall, the first circuit component containing section being formed at the portion between the dividing wall and the case frame; and a case cover which is fitted to the bottom case, the second circuit component containing section being formed between the case cover and the dividing wall.

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13. The motor unit according to claim 12, characterized in that

the power system circuit components are fixed to the inner surface of the case cover.

14. The motor unit according to claim 12 or 13, characterized in that

the case cover includes a plurality of fins on the outer surface side thereof.

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15. The motor unit according to any one of claims 12 to 14, characterized in that

the case cover is made of aluminum, and

black alumite treatment has been applied to the outer

10 side surface of the case cover.